Nat. Hazards Earth Syst. Sci. Discuss., 1, C2455–C2456, 2014
www.nat-hazards-earth-syst-sci-discuss.net/1/C2455/2014/

Natural Hazards and Earth System Sciences
Discussions

Interactive comment on "Modeling extreme wave heights from laboratory experiments with the nonlinear Schrödinger equation" *by* H. D. Zhang et al.

Anonymous Referee #3

Received and published: 2 February 2014

This manuscript discusses the wave height distribution by means of numerical simulations of the NLS equation and laboratory experiments. As such the overall result is not particularly new. However, the combined numerical and laboratory perspective makes the manuscript very interesting and of value for the scientific community. Therefore, I suggest that the manuscript is considered for publication after a few minor comments are addressed:

1) In section 3, laboratory experiments are discussed. How many random realisation were produced for each sea state? How long were the recorded time series? How many waves in total for each sea state were available for the statistical analysis?

2) Authors mentions at page 5272 that a numerical simulations are in "perfect" agreement with experiments as presented in figure 5a-c. I would personally aid the term "perfect"! I suggest to simply mention that numerical and experimental data are in good agreement

3) Check the references as there are a number of them that are incomplete. For example, the list of authors in Onorato et al. 2009 J. Fluid Mech. 627 is incomplete; correct the Journal name in Toffoli et al. 2008a and Toffoli et al. 2008b as they are published in Ocean Engineering

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Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., 1, 5261, 2013.